

# Type 2 surge protection base element - VAL-MS TE-AR/75X350/3EQ/ FM - 2905684

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Assembly with base element for type 2 arresters of the VALVETRAB MS product range, with remote indication contact and field wire disconnect. Version for 3-mode protection of 2-wire signals.



## Product Features

- With floating remote indication contact
- 3-Mode equalizer protection
- Field wire disconnect



## Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	550.0 g
Country of origin	Germany

## Technical data

### Note

Trade restriction	The products are offered exclusively for export outside the EU and the European Economic Area.
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### Dimensions

Height	193 mm
Width	54 mm
Depth	78 mm
Horizontal pitch	3 Div.

### Ambient conditions

Degree of protection	IP20
	IP20 (Only when all disconnects are closed)
Ambient temperature (operation)	-40 °C ... 80 °C

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## Technical data

### General

Housing material	PBT / PA
Flammability rating according to UL 94	V0
Color	black
Standards for clearances and creepage distances	EN 60664-1
	EN 61643-1
Mounting type	DIN rail mounting with additional retaining screw
Number of positions	3
Surge protection fault message	Optical, remote indicator contact
Direction of action	(L+)-PE & (L-)-PE & (L+)-(L-)
	(L+)-PE & (L-)-PE & (L+)-(L-)

### Protective circuit

IEC test classification	II
	T2
Nominal voltage $U_N$	5 V AC ... 48 V AC
Maximum continuous operating voltage $U_c$	60 V
	60 V
Maximum continuous operating voltage $U_c$ (L-PE)	230 V
	230 V
Rated load current $I_L$	80 A (Serial through wiring at 16 mm <sup>2</sup> )
Residual current $I_{PE}$	≤ 5 μA
Max. discharge current $I_{max}$ (8/20) μs maximum (L-PE)	20 kA
Nominal discharge current $I_n$ (8/20) μs (L-PE)	10 kA
Voltage protection level $U_p$ (L-PE)	≤ 1.5 kV
Response time $t_A$	≤ 25 ns
Max. backup fuse with branch wiring	200 A (gL / gG)
Max. backup fuse with V-type through wiring	80 A (gL / gG)
Short-circuit resistance $I_p$ with max. backup fuse (effective)	25 kA
	25 kA
Short-circuit current rating $I_{SCCR}$	10 kA (L-L)

### Connection, protective circuit

Connection method	Screw terminal block
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks
Screw thread	M5

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### Technical data

#### Connection, protective circuit

Tightening torque	26.5 lb <sub>F</sub> -in. ... 30 lb <sub>F</sub> -in. (UL)
Stripping length	16 mm
Conductor cross section flexible min.	0.5 mm <sup>2</sup>
Conductor cross section flexible max.	16 mm <sup>2</sup>
Conductor cross section solid min.	0.5 mm <sup>2</sup>
Conductor cross section solid max.	16 mm <sup>2</sup>
Conductor cross section AWG min.	20
Conductor cross section AWG max.	6
Conductor cross section AWG	15 ... 2 (UL)
	20 ... 6
	12 ... 4

#### Remote indication contact

Connection name	Remote fault indicator contact
Switching function	PDT, 1-pos.
Connection method	MC 1,5/3
Screw thread	M2
Tightening torque	0.25 Nm
	2 lb <sub>F</sub> -in. ... 4 lb <sub>F</sub> -in. (UL)
Stripping length	7 mm
Conductor cross section flexible min.	0.14 mm <sup>2</sup>
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section AWG min.	28
Conductor cross section AWG max.	16
Maximum operating voltage U <sub>max</sub> AC	250 V AC
Maximum operating voltage U <sub>max</sub> DC	30 V DC
Max. operating current I <sub>max</sub>	1.5 A AC (250 V AC)
	1.5 A DC (125 V AC)
	1.5 A DC (30 V DC)

### Classifications

eCl@ss

eCl@ss 5.1	27130801
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## Classifications

### eCl@ss

eCl@ss 6.0	27130802
eCl@ss 8.0	27130802
eCl@ss 9.0	27130802

### ETIM

ETIM 4.0	EC002497
ETIM 5.0	EC000381

## Accessories

### Accessories

#### Bridge

Plug-in bridge - FBS 2-18 - 2801068



Plug-in bridge for cross-connections in the VAL-MS BE-AR terminal center, 2-pos., color: Red

Wiring bridge - MPB 18/1-57 - 2809238



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 57-pos.

Plug-in bridge - FBS 2-18 - 2801068



Plug-in bridge for cross-connections in the VAL-MS BE-AR terminal center, 2-pos., color: Red

#### Insertion bridge

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### Accessories

Insertion bridge - EB 56-18 - 3009299



Insertion bridge, Pitch: 18 mm, Number of positions: 56, Color: gray

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### Screwdriver tools

Screwdriver - SZS 0,8X4,0 VDE - 1212508



Screwdriver, slot-headed, VDE insulated, size: 0.8 x 4.0 x 100 mm, 2-component grip, with non-slip grip

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Screwdriver - SZS 0,4X2,5 VDE - 1205037



Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

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### Spare parts

Type 2 surge protection plug - VAL-MS 75 VF ST - 2805318



Surge protection plug type 2 with series connection consisting of varistor and gas-filled spark gap for VAL-MS base element, thermal monitoring, visual fault warning.

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## Accessories

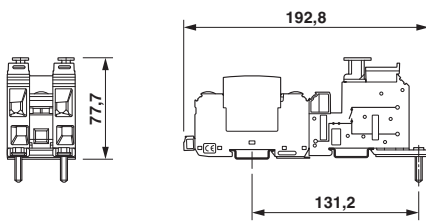
Type 2 surge protection plug - VAL-MS 350 VF ST - 2856595



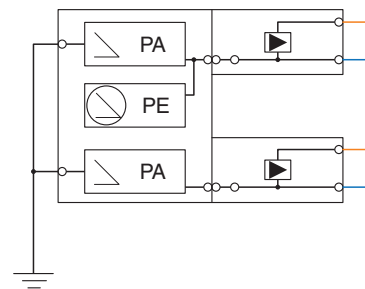
surge protection connector type 2 with series connection consisting of varistor and gas-filled spark gap for VAL-MS base element, thermal monitoring, visual fault warning. Design: 350 V AC

## Drawings

Dimensional drawing



Circuit diagram



House wires shown as blue. Field wires shown as orange.